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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/689,324	10/20/2003	Hongyong Zhang	0941.68533	4132

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Patrick G. Burns
Greer, Burns & Crain, Ltd.
Suite 2500
300 South Wacker Drive
Chicago, IL 60606

EXAMINER

SHAPIRO, LEONID

ART UNIT

PAPER NUMBER

2629

DATE MAILED: 11/20/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.		Applicant(s)	
	10/689,324		ZHANG ET AL.	
	Examiner		Art Unit	
	Leonid Shapiro		2629	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 32-34, 36, 38 and 39 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 32-34, 36 and 38-39 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 32-34 are rejected under 35 U.S.C. 102(b) as being anticipated by Lee (US Patent No. 5,426,447).

As to claim 32, Lee teaches a liquid crystal display device (See Col. 1, Lines 6-16) comprising:

a display part having pixels arranged in a matrix formation (See Fig. 1, item 14, Col. 4, Lines 22-46);

signal lines and scan lines connected to the pixels (See Fig. 1, items 19,24,36,42, Col. 5, Lines 6-30);

analog switches respectively connected to the signal lines (See Fig. 2, items 108,110,112,114, Col. 6, Lines 38-53 and Col. 3, Lines 9-21);

a data driver which is connected to the analog switches via common signal lines and supplies display signals to the signal lines via the analog switches (See Fig. 2, item 12, Col. 5, Lines 40-43); and

a reset circuit (in reference is equivalent to precharge circuit) which resets the potentials of the signal lines and/or the common signal lines to a predetermined potential (See Fig. 2, items 116,118,120,122,124, 126,128, from Col. 5,

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Line 67 to Col. 6, Line 13, Col. 3, Lines 1-3) with a given period (See Fig. 3d-3f, from Col. 7, Line 38 to Col. 8, Line 8).

As to claim 33-34, Lee teaches the reset circuit is connected to the signal lines and output part of driver (See Fig. 2, items 116,118,120,122,124, 126,128, D1-D64, from Col. 5, Line 67 to Col. 6, Line 35).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claim 39 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lee in view of Enami et al. (US Patent No. 5,892,493).

Lee does not disclose a polarity of the predetermined potential is inverted in synchronism with the polarity of the display signals.

Enami et al. teaches a polarity of the predetermined potential is inverted in synchronism with the polarity of the display signals (See Fig. 4A, Col. 11, Lines 22-50).

It would have been obvious to one of ordinary skill in the art at the time of invention to incorporate teachings of Enami et al. into Lee system in order to display an image with high quality even if the duration of application of data voltage is short (See Col. 3, Lines 41-43 in the Enami et al. reference).

5. Claim 36 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lee in view of Kimura (US Patent No. 6,281,826).

Lee does not disclose the reset circuit is connected to the common signal lines.

Kimura teaches the reset circuit is connected to the common signal lines (See Fig. 1, Col. 3, Lines 28-35).

It would have been obvious to one of ordinary skill in the art at the time of invention to incorporate teachings of Kimura into Lee system in order to increase speed of driving the liquid crystal (See Col. 3, Line 34 in the Kimura reference).

6. Claim 38 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lee in view of Soneda et al. (US Patent No. 4,803,480).

Lee does not disclose the reset circuit receives a reset signal externally applied thereto during a blanking period included in a horizontal period and resets the potentials of the signal lines to the predetermined potential during the blanking period.

Soneda et al. teaches the reset circuit receives a reset signal externally applied thereto during a blanking period included in a horizontal period and resets the potentials of the signal lines to the predetermined potential during the blanking period (See Fig. 1, items ϕ HBLK, Mr1-Mrn, Col. 4, Lines 48-55).

It would have been obvious to one of ordinary skill in the art at the time of invention to incorporate teachings of Soneda et al. into Lee system in order to carry out

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the display of the still picture over a long time period (See Col. 3, Lines 21-25 in the Soneda et al. reference).

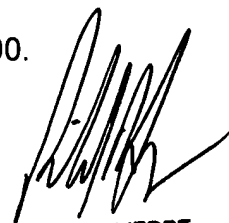
Telephone Inquire

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Leonid Shapiro whose telephone number is 571-272-7683. The examiner can normally be reached on 8 a.m. to 5 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Hjerpe can be reached on 571-272-7691. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

LS
10.10.06



RICHARD HJERPE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600